UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/416,961	10/13/1999	SHIGEKAZU INOHARA	520.37728X00	6821

				EXAMINER
24956	7590	01/05/2006		LEROUX, ETIENNE PIERRE

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ART UNIT	PAPER NUMBER
2161	

DATE MAILED: 01/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 October 2005</u> .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>36-42</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>36-42</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>13 October 1999</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Status

Claims 36-42 are pending; claims 1-35 have been cancelled. Claims 36-42 are rejected as

detailed below.

Drawings

Figure 2-5 should be designated by a legend such as --Prior Art-- because only that which is old is

illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in

reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the

drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of

any required corrective action in the next Office action. The objection to the drawings will not be held in

abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set

forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this
> title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter
> pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35

U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the

time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the

obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not

commonly owned at the time a later invention was made in order for the examiner to consider the applicability

of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 36, 38 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No

4,638,424 issued to Beglin et al (hereafter Beglin) in view of US Pat No 6,275,938 issued to Bond et al

(hereafter Bond).

Claims 36:

Beglin discloses:

receiving in said secondary storage apparatus from the first computer an object based I/O request

for said application data [arrow 120 indicates recall task 27, Fig 4, col 13. lines 47-50]

performing said object-based I/O request by executing said object access module [DSName

stored in L0 DASD 14, col 14, lines 10-15, col 6, lines 49-54].

Beglin discloses the elements of the claimed invention as noted above but does not disclose

sending to said secondary storage apparatus from the first computer, or a second computer different

from the first computer, an object access module that implements an object-based I/O function to reply

to object-based I/O requests using the block-based I/O function of said block access module. Bond

discloses sending to said secondary storage apparatus from the first computer, or a second computer

different from the first computer, an object access module that implements an object-based I/O function

to reply to object-based I/O requests using the block-based I/O function of said block access module [col

4, lines 30-38]. It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Beglin to include sending to said secondary storage apparatus from the first

computer, or a second computer different from the first computer, an object access module that

implements an object-based I/O function to reply to object-based I/O requests using the block-based I/O

function of said block access module as taught by Bond for the purpose of executing a single function or

a limited range of functions [col 4, lines Fig 2, col 4, lines 39-57]. The skilled artisan would have been

motivated to modify Beglin per the above such the downloaded executable code is able to provide an

interface with the operating system of the user's computer system [col 1, lines 30-35].

Furthermore, Bond discloses registering said object access module in said active network storage

controller to provide the object-based I/O function with the secondary storage apparatus [Fig 2, applet is

loaded into predetermined memory area, col 5, lines 24-33].

Claim 38:

Beglin discloses:

receiving in said secondary storage apparatus from the first computer an object based I/O request

for said application data [arrow 120 indicates recall task 27, Fig 4, col 13. lines 47-50]

performing said object-based I/O request by executing said object access module [DSName

stored in L0 DASD 14, col 14, lines 10-15, col 6, lines 49-54].

Beglin discloses the elements of the claimed invention as noted above but does not disclose

sending to said secondary storage apparatus from the first computer, or a second computer different

from the first computer, an object access module that implements an object-based I/O function to reply

to object-based I/O requests using the block-based I/O function of said block access module. Bond

discloses sending to said secondary storage apparatus from the first computer, or a second computer

different from the first computer, an object access module that implements an object-based I/O function

to reply to object-based I/O requests using the block-based I/O function of said block access module [col

4, lines 30-38]. It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Beglin to include sending to said secondary storage apparatus from the first

computer, or a second computer different from the first computer, an object access module that

implements an object-based I/O function to reply to object-based I/O requests using the block-based I/O

function of said block access module as taught by Bond for the purpose of executing a single function or

a limited range of functions [col 4, lines Fig 2, col 4, lines 39-57]. The skilled artisan would have been

motivated to modify Beglin per the above such the downloaded executable code is able to provide an

interface with the operating system of the user's computer system [col 1, lines 30-35].

Furthermore, Bond discloses registering said object access module in said active network storage

controller to provide the object-based I/O function with the secondary storage apparatus [Fig 2, applet is

loaded into predetermined memory area, col 5, lines 24-33].

Beglin discloses sending to said secondary storage apparatus from the first computer, or the

second computer, object description data indicating how said application data is stored on said

secondary storage apparatus [DSName stored in L0 DASD 14, col 14, lines 10-15, col 6, lines 49-54].

Furthermore, Bond discloses registering said object description data in the registered object

access module Furthermore, Bond discloses registering said object access module in said active network

storage controller to provide the object-based I/O function with the secondary storage apparatus [Fig 2,

applet is loaded into predetermined memory area, col 5, lines 24-33].

Claim 42:

Beglin discloses receiving in said secondary storage apparatus from the first computer an

advanced I/O request for said application data [Beglin: arrow 120 indicates recall task 27, Fig 4, col 13,

lines 47-50]

performing said object-based I/O request by executing said advanced function module [Beglin:

DSName stored in LO DASD 14, col 14, lines 10-15, col 6, lines 49-54]

sending to said secondary storage apparatus from the first computer, or a second computer

different from the first computer, an advanced function module that implements an advanced I/O

function for said application program by invoking at least one of said object access modules [Beglin:

arrow 120 indicates recall task 27, Fig 4, col 13, lines 47-50]

Beglin discloses the essential elements of the claimed invention as noted above but is silent

regarding maintaining in said active network storage controller a plurality of object access modules,

each providing other modules with an object-based I/O function as a common function for various

applications by invoking one of said block access modules. Bond discloses maintaining in said active

network storage controller a plurality of object access modules, each providing other modules with an

object-based I/O function as a common function for various applications by invoking one of said block

access modules [Bond: col 4, lines 30-40]. It would have been obvious to one of ordinary skill in the art

at the time the invention was made to modify Belin to include maintaining in said active network storage

controller a plurality of object access modules, each providing other modules with an object-based I/O

function as a common function for various applications by invoking one of said block access modules as

taught by Bond for the purpose of providing applets which can be downloaded and executed within

another program for the purpose of providing access to data stored in a network storage device [Bond:

col 5, lines 50-63].

Claims 37, 39 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of

Beglin and Bond and further in view of US Pat No 6,549,954 issued to Lambrecht et al (hereafter Lambrecht).

Claim 37:

The combination of Beglin and Bond discloses the elements of claim 36 as noted above but does not

discloses wherein said object access module obtains a data value or location of data in a storage unit

corresponding to a specification, which is either an object offset, an object offset size or an object tag specifying

the type of data to be retrieved. Lambrecht discloses wherein said object access module obtains a data value or

location of data in a storage unit corresponding to a specification, which is either an object offset, an object

offset size or an object tag specifying the type of data to be retrieved [col 11, lines 15-30]. It would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of

Beglin and Bond to include wherein said object access module obtains a data value or location of data in a

storage unit corresponding to a specification, which is either an object offset, an object offset size or an object

tag specifying the type of data to be retrieved as taught by Lambrecht for the purpose of including an encoded

destination for the object [col 11, line 17]. The skilled artisan would have been motivated to modify the

combination of Beglin and Bond per the above such that the data object can be routed correctly and also

checked when arriving at its destination to confirm that the current destination is in fact the correct destination.

Claim 39:

The combination of Beglin and Bond discloses the elements of claim 38 as noted above but does not

discloses wherein said object access module obtains a data value or location of data in a storage unit

corresponding to a specification, which is either an object offset, an object offset size or an object tag specifying

the type of data to be retrieved. Lambrecht discloses wherein said object access module obtains a data value or

location of data in a storage unit corresponding to a specification, which is either an object offset, an object

offset size or an object tag specifying the type of data to be retrieved [col 11, lines 15-30]. It would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of

Beglin and Bond to include wherein said object access module obtains a data value or location of data in a

storage unit corresponding to a specification, which is either an object offset, an object offset size or an object

tag specifying the type of data to be retrieved as taught by Lambrecht for the purpose of including an encoded

destination for the object [col 11, line 17]. The skilled artisan would have been motivated to modify the

combination of Beglin and Bond per the above such that the data object can be routed correctly and also

checked when arriving at its destination to confirm that the current destination is in fact the correct destination.

Claim 41:

The combination of Beglin and Bond discloses the elements of claim 38 as noted above but does

not discloses wherein said object description data is data for specifying a file format of said application

data based on whether the data stored in a specific part of one or more storage units contain some

specific value or pattern. Lambrecht discloses wherein said object description data is data for specifying

a file format of said application data based on whether the data stored in a specific part of one or more

storage units contain some specific value or pattern [object's priority, col 11, lines 15-30]. It would

have been obvious to one of ordinary skill in the art at the time the invention was made to modify the

combination of Beglin and Bond to include wherein said object description data is data for specifying a

file format of said application data based on whether the data stored in a specific part of one or more

storage units contain some specific value or pattern as taught by Lambrecht for the purpose of

classifying the storage areas. The skilled artisan would have been motivated to modify the combination

of Beglin and Bond per the above such that secure data can be separated from less secure data in order to

protect the integrity of the secure data.

Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Beglin and

Bond and further in view of US Pat No 6,285,978 issued to Bernth et al (hereafter Bernth).

Claim 40:

The combination of Beglin and Bond discloses the elements of claim 38 as noted above but does

not disclose wherein said object description data is data for specifying an attribute or an inter-block

reference by a lexical analyzing program or a parser generating grammar of said application data.

Bernth discloses as prior art, wherein said object description data is data for specifying an attribute or an

inter-block reference by a lexical analyzing program or a parser generating grammar of said application

data [col 1, lines 50-55]. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the combination of Beglin and Bond to include wherein said object

description data is data for specifying an attribute or an inter-block reference by a lexical analyzing

program or a parser generating grammar of said application data as taught by Bernth for the purpose of

formatting tags [col 1, line 56].

Response to Arguments

Applicant's arguments filed 10/26/2005 have been fully considered but they are not persuasive.

Applicant Argues:

Applicant states in the fourth paragraph of page 8 "The present invention is directed to an object

access module ...... is sent to the storage apparatus equipped with a block access module, i.e., a

program module presenting block-based I/O function (read/write function for block units), from a

computer via network. The object access module is a program module for providing read/write function

to data stored in a plurality of non-contiguous storage units by using the above mentioned access module

and is registered in a active network storage controller of the storage apparatus. Hence, in the result, the

storage apparatus becomes having ..... an object I/O function.

Examiner Responds:

Examiner finds it difficult to understand above argument. Examiner maintains considerable

material has been omitted.

Applicant Argues:

Applicant states in the second paragraph of page 9 "Beglin however, does not teach or suggest

the features of the present invention which has double layers of program modules. Further, Beglin does

not teach or suggest that the storage apparatus becomes .... having the upper function by sending or

being downloaded ..... the upper program module from the exterior of the storage apparatus such as in

the present invention.

Examiner Responds:

Examiner is not persuaded. Above argument is difficult to understand. Examiner maintains

considerable material has been omitted. Nevertheless, in order to respond as best as possible to applicant's

applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the

features upon which applicant relies (i.e., double layers of program modules) are not recited in the rejected

claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are

not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant Argues:

Applicant states in the third paragraph of page 9, "Even if Beglin and Bond are combined as

suggested by the examiner the combination does not teach or suggest for example sending Java Applets

and executing the downloaded Applets in a specified area, sandbox such as in the present invention.

Examiner Responds:

In response to applicant's argument that the references fail to show certain features of applicant's

invention, it is noted that the features upon which applicant relies (i.e., sending Java Applets and executing the

downloaded Applets in a specified area) are not recited in the rejected claim(s). Although the claims are

interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re*

Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, Applicant's comment is difficult

to understand because examiner could not even find a single reference to a JAVA Applet in applicant's

specification. In fact examiner relied upon Bond's disclosure of an applet to read on the claimed "object access

module." Examiner maintains that an applet is inherently an "object access module." Additional support for

above assertion that an applet is inherently an "object access module" is provided by the disclosure of Schnier

in Pub No. US 2001/0003824, particularly paragraph 79 which teaches that the Java applet is itself an object,

one of the applet class, with methods defined to operate on it. The applet is generally written with the

understanding that it will access objects on a remote server.

Applicant Argues:

Applicant lists in the fourth paragraph of page 9 various features of the present invention as

included in the specification.

Examiner Responds:

In response to applicant's argument that the references fail to show certain features of applicant's

invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read

into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant Argues:

Applicant states in the first paragraph of page 10 "The merit of the above feature is disclosed in,

for example, Page 11, line 11-Page 12, line 10 etc. in this specification. Such method[s] for constituting

multi-program modules environment on storage apparatus is not suggested even if combining any prior

art.

Examiner Responds:

Examiner is not persuaded. In response to applicant's argument that the references fail to show

certain features of applicant's invention, it is noted that the features upon which applicant relies are not

recited in the rejected claim(s). Although the claims are interpreted in light of the specification,

limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26

USPQ2d 1057 (Fed. Cir. 1993). Furthermore, examiner notes Rule 37CFR 1.111(b) requires Applicant

to "distinctly and specifically point out errors" in the examiner's action. Also, arguments or conclusions

of Applicant cannot take the place of evidence. *In re Cole*, 51 CCPA 919, 326F.2d 769, 140 USPQ 230

(1964).

Applicant Argues:

Applicant states in the second paragraph of page 10 "The remaining references of record have

been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect

to the references utilized in the rejection of claims 36-42.

Examiner Responds:

Examiner is not persuaded. Applicant should submit an argument pointing out disagreements with the examiner's contentions. Applicant must also discuss the references applied against the claims, explaining how the claims avoid the references or distinguish from them.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne P. LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached Monday through Friday between 8:00 am and 4:30 pm.
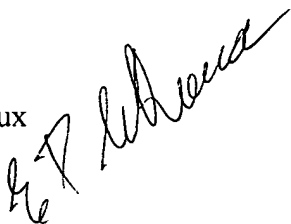
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-

9197 (toll-free).

Etienne LeRoux

12/30/2005